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Federal Communications Commission
Office of the Secretary

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington D.C. 20554

In the Matter of

Advanced Television Systems
and Their Impact on the
Existing Television Broadcast
Service

MM Docket No. 87-268

COMMENTS OF

THE CENTER FOR ADVANCED TELEVISION STUDIES

The Center for Advanced Television Studies submits these comments in the above captioned proceeding in response to the Commission's Notice of Inquiry.

The Center for Advanced Television Studies (CATS) was organized in 1983 by ten companies committed to promote and sponsor independent domestic research in television sciences and technology, looking toward the next generation of television services in the United States. Because the Center represents a broad spectrum of American television programming distribution and reception interests, we think it is important that the Commission be aware of the organization and its program as it considers the work contemplated by the Notice of Inquiry.

Because of the broad and basic nature of the research, the human and physical resources required, and the desire to coordinate rather than duplicate effort, the CATS consortium has elected to sponsor the work at a university or other research center.

A second objective of this sponsorship is the strengthening of the curricula and the renewal of interest by young scientists in careers in television sciences, a field in which the United States has been a world leader.

Competitors world-wide are the proponents of various approaches to significantly improve the quality of television delivered to the consumer. This thrust for technology and economic leadership in television has been the beneficiary of industry and/or government support of research and development in hardware and systems. A major goal of CATS is to provide research support for domestic companies in their effort to regain the initiative in determining the future of television in the United States.

The current sponsoring members are:

American Broadcasting Company, Inc.,
Ampex Corporation,
Eastman Kodak Company,
Home Box Office, Inc.,
National Broadcasting Company, Inc.,
Public Broadcasting Service,
Tektronix, Inc., and
Zenith Electronics Corporation.

Each sponsoring member commits to contribute \$100,000 annually for three years except PBS which provides administrative services to the Center.

Membership in the center is open to any business, government or private organization whose ultimate parent is domiciled in the United States and which actively engages in and desires to promote research and development in television broadcast apparatus or television broadcasting and program distribution, whether by wire or through the air.

The work of the Center is directed by a Board of Directors made up of one member from each Sponsor. A Technical Advisory Board, selected by the Board of Directors (usually one member from each sponsor), assists the Board in making research and development funding decisions and helps oversee the performance of the research. Research is performed by independent academic institutions; the Center itself does not operate a central research laboratory. Members of the Center individually enter into research agreements with the institution which will carry out the research projects approved by the Center. These agreements designate the Center as a limited agent of the member to supervise the research.

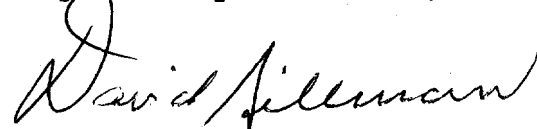
The current funding has been placed under the Advanced Television Research Program at Massachusetts Institute of Technology. The Director of the Advanced Television Research Program is Prof. William F. Schreiber, an internationally recognized authority in the field of imaging research. Research is directed at signal processing and transmission tools which will underlie TV systems of the future: information compression, reconstruction of motion, signal encoding and spectral content, human perception, evaluation or improvement of proposed systems, synthesis of new systems to specific objectives. CATS support has helped ATRP/MIT develop and apply an important test bed for computer simulation of image processing and presentation proposals. Numerous technical reports have been prepared. Although very significant knowledge has been gained and the Center is believed to have a unique understanding of the relationship between television system design and the quality of the image displayed on the home receiver, there is still a long way to go in this research. Additionally, the Center provides partial support for the Audience Research Facility of the

MIT Media Laboratory which conducts studies of audience reactions to technical developments. Studies have included stereo for television sound and aspects of high definition television imaging. The Audience Research Facility "laboratory" is located in a shopping mall in suburban Boston where sampling of public reaction to selected new technologies are conducted in a living-room-like environment.

Although the research effort of the Center has to date been conducted at MIT, the Board of Directors will fund research wherever the objectives of the Center can best be served.

It is expected that the individual members of CATS will file independent comments in this Docket, which may or may not reflect the knowledge gained through this CATS-funded research. The Board of Directors of CATS has directed that these comments be filed in order to make the Commission aware of this resource and the desire of the Sponsors to make it responsive to the needs of the American telecommunications community and particularly those needs expressed in the current Notice of Inquiry.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "David Sillman".

Center for Advanced
Television Studies
David Sillman, Secretary

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